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(54) Title: METHOD FOR HYBRIDISATION OF IMMOBILIZED GENOMIC DNA

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(57) Abstract: The present invention is directed to a novel method of efficiently hybridising probes onto immobilized genomic DNA and/or RNA comprising the steps of (a) providing intact genomic DNA and denaturing said intact genomic DNA; (b) immobilizing said denatured intact genomic DNA onto a matrix; said matrix comprising pore sizes within a range of 0.6 μ m to 2 μ m including the outer limits (c) providing a set of probes and passing said probes through said matrix under conditions favouring hybridisation of the probes to its complementary sequence in said intact genomic DNA; and (d) washing off non-hybridised probes through said matrix, leaving formed hybridised intact genomic DNA/probe complexes for further analysis. The present invention is further directed to a novel method for target nucleic acid detection and quantification in a genomic DNA sample comprising the steps of: (a) providing intact genomic DNA and denaturing said intact genomic DNA; (b) performing a hybridisation according to a method as described above; (c) recovering hybridised probes; and essentially simultaneously amplifying any recovered probe using a single primer pair, each member of said primer pair binding to each recovered probe onto the respective flanking primer attachment sequences of said probe, and (d) qualitatively and quantitatively analysing the recovered amplified probes of step (c). The present invention also relates to the uses thereof as well as devices, apparatus and kits for performing said methods of the invention.

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